# METHOD FOR MONITORING END OF LIFE FOR BATTERY


## Abstract of the Disclosure

A system is described which has a battery, a device which is powered by the battery in an episodic manner, and a charge storage capacitor. The system has attached to the charge storage capacitor a device or devices capable of: reading the rate of charge storage; or measuring both time and charge stored or added to the charge storage capacitor so that a rate of charge storage may be calculated. The estimated replacement time for the battery, particularly for a lithium battery in a pacing device, is easily estimated. Also described herein is a process for estimating a level of energy depletion in the system. The process comprises: finding a relatively quiescent period in powering of the device in the episodic manner; determining a rate of charging in the storage capacitor during the quiescent period; and correlating the rate of charging in the storage capacitor to a value of internal impedance in the battery through a comparison with known relationships for the battery and rate of charging to determine a value for the internal impedance of the battery.



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